

REMARKS

The Office Action of February 28, 2006 has been received and its contents carefully considered.

The present Amendment corrects informalities in claims 1 and 13. It also cancels claim 15 and transfers its subject matter to claim 13. In addition, the Amendment revises claims 16-20 to depend from claim 13 instead of claim 15.

The present Amendment also forwards two replacement sheets of formal drawings in reply to the drawing objection. In replacement drawings, the time axis is labeled in Figures 1, 2, and 4.

The Office Action rejects all of the claims for anticipation by US patent 6,968,485 to Van Kirk.

Claim 1 is reproduced below, with emphasis added:

A method for testing signals of integrated circuits (ICs), comprising the steps of:

successively driving, by a first IC chip, a plurality of test patterns one at a time;

receiving, at a second IC chip, and latching in the test patterns one by one;

determining, by the second IC chip, whether a currently latched test pattern is correct;

if at least an error bit occurs in the currently latched test pattern, the second IC chip indicating that there exists noise interference in a signal trace corresponding to the error bit; and

repeating the above steps until the first IC chip finishes driving the test patterns.

It will be seen that the method of claim 1 incorporates a second IC chip, which determines the **correctness** of the latched test pattern, whereas Van Kirk describes a

method of measuring the **difference** between a reference voltage (Figure 4, 422) and a test voltage (Figure 4, 427) as the ground bounce. Although Van Kirk discloses measuring the value of ground bounce (by measuring the difference), the reference fails to teach the determining the correctness of the test patterns. It is therefore respectfully submitted that the reference neither discloses nor suggests the invention defined by claim 1, and claim 1 should therefore be allowed.

Turning now to independent claim 13, this claim now recites that “if the currently latched test pattern is incorrect, **the agent in the integrated circuits adjusting a reference voltage level** in accordance with the type of the corresponding test pattern to change an input threshold of the agent” (emphasis supplied). Van Kirk neither discloses nor suggests an agent in the integrated circuits that adjusts a reference voltage level, so claim 13 should also be also allowed.

The remaining claims depend from the independent claims discussed above and recite additional limitations to further define the inventions, so they are patentable along with their independent claims and need not be further discussed. Nevertheless, several of the dependent claims will now be briefly addressed.

With regard to claims 2 and 14, the Office Action refers to passages at column 11 of Van Kirk, line 32 and column 20, lines 50-60 (in Van Kirk’s claim 18). It is nevertheless respectfully submitted that Van Kirk’s measuring system 900 does not suggest, much less disclose, three types of test patterns including a ground bounce type, a power bounce type, and a heavy load type.

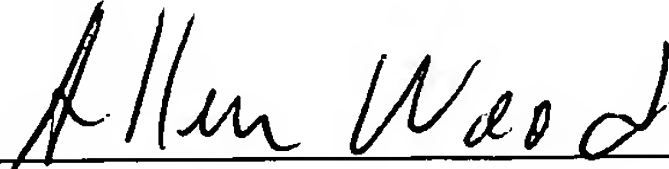
With regard to claims 3 and 15, the Office Action refers to passages in Van Kirk regarding the problem of ground bounce (column 1, lines 39-40 and column 2, lines 12-15), hold time problems due to ground bounce (column 2, lines 55-60), and Van Kirk's ground bounce measuring system 300 (column 3, lines 40-45). These passages, though, do not disclose or suggest that a second IC chip adjusts a reference voltage in accordance with a type of test pattern, if a currently latched test pattern is incorrect.

With regard to claims 4 and 16, the Office Action refers to Van Kirk's ground bounce measurement system (Figure 15), a measurement circuit measuring the difference between the reference and test voltages (column 4, line 60), measurement system 900 (column 12, lines 36-45 and column 13, lines 1-20), and a reference domain and a test domain (column 14, line 63). Nevertheless, it is respectfully submitted that these passages do not disclose or suggest that a reference voltage level is decreased to lower the input threshold of a second IC chip if the corresponding test pattern is of the power bounce type.

With regards to claims 5-7 and 17-19, the Office Action refers to passages in Van Kirk regarding a ground bounce measurement method (Figure 15), a circuit for measuring the difference between reference and test voltages (column 4, line 60), Van Kirk's measurement system 900 (column 12, lines 36-45 and column 13, lines 1-20), and a reference domain and a test domain (column 14, line 63). It is nevertheless respectfully submitted that these passages fail to teach or suggest that a reference voltage level is increased to raise the input threshold of a second IC chip if the corresponding test pattern is of the ground bounce type.

For the foregoing reasons, it is respectfully submitted that this application is in condition for allowance. Reconsideration of the application is therefore respectfully requested.

Respectfully submitted,

A handwritten signature in dark ink, appearing to read "Allen Wood", written over a horizontal line.

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IN THE DRAWINGS:

Please enter the two replacement sheets of drawings (Figures 1, 2, 4, and 5) that are attached to this Amendment.